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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HUYNH, KIM T

ART UNIT

PAPER NUMBER

2112

DATE MAILED: 10/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p>09/632,466</p>	<p>Applicant(s)</p> <p>MILAN ET AL.</p>	
	<p>Examiner</p> <p>Kim T. Huynh</p>	<p>Art Unit</p> <p>2112</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) * | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 24-27, 30, 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutani et al. (Pub No. :US 2003/0043771 A1) in view of Mattingly et al. (Pub No US20010014102)

As per claim 24, Mizutani discloses a wireless Universal Serial Bus (USB) hub and remote wireless peripheral device for communication with a computer having a USB port comprising:

- A remote wireless peripheral device (fig.1, 7) having a circuit for generating device information related to operations performed by said peripheral device and an RF transmitter (fig.1, 23) connected to said circuit for transmitting a wireless signal including said device information, said circuit and said RF transmitter being integral to said peripheral device, said RF transmitter being the sole means for communicating said device information from said peripheral device and [0014-0015], [0077], wherein transceiver 21 of wireless transmitting wireless signal into transceiver 23 of device for receiving wireless signal)

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- A data reception circuit for receiving said wireless signal from said RF transmitter; (fig.1, 23)
- An upstream USB port adapted to be connected to the computer; and [0116], wherein upstream to computer and downstream to devices)
- A hub controller connected between said data reception circuit and said upstream USB port whereby when said upstream USB port is connected to the USB port of the computer and said peripheral device generates said wireless signal to said data reception circuit, said hub controller converts said wireless signal to a USB data signal and passes said USB data signal to said upstream port for communication to the computer. [0116], [0077]

Mizutani discloses all the limitations as above except peripheral device not having any USB communication capability. However, Mattingly discloses hub 102 is providing wireless communications to a plurality of users, through devices 104a-n. [0023] Devices 104a-n can include any integral device that is configured for accessing a computer system wirelessly and does not include USB capability. [0026]

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate Mattingly's teaching into Mizutani's system so as implement wireless peripherals without use of USB capability since Mattingly shows such devices to be equivalent and Mizutani suggests that any device may be used.[0011]

As per claim 25, Mizutani discloses wherein said data reception circuit further includes an RF receiver (fig.1, 21), for receiving said wireless signal from said peripheral device.

As per claim 26, Mizutani discloses wherein said data reception circuit further includes a signal discriminator connected between said RF receiver and said hub controller for receiving said wireless signal from said RF receiver and presenting said device information in said wireless signal to said hub controller. ([0047], [0020],[0014], wherein a hub and port each have a device identifier uniquely assigned)

As per claim 27, Mizutani discloses wherein said hub controller further includes a serial interface engine connected to said signal discriminator for converting said device information into USB format to form said USB data signal. [0014], ([0047], [0020],[0014], wherein a hub and port each have a device identifier uniquely assigned)

As per claim 30, Mizutani discloses the wireless USB hub(fig.1, 3) and peripheral device (fig.1, 7) including at least one conventional downstream USB port in the hub (see abstract) and connected to said hub controller for connection to a USB peripheral device. [0116], wherein wireless hub controlling communication of port 5 of device (downstream) and upstream to computer via wireless, a hub and port each have a device identifier uniquely assigned [0020]

As per claim 32, Mizutani discloses a wireless Universal Serial Bus kit for providing communication between at least one remote wireless peripheral device and a computer having a USB port comprising:

- An upstream USB port adapted to be connected to the computer USB port; [0116], wherein upstream to computer and downstream to devices)
- At least one downstream USB port (fig.1, 5) connected (via wireless) to said upstream USB port; [0014], [0116], wherein wireless hub controlling communication between port 5 (downstream) of device and upstream to computer.
- A data reception circuit including an RF receiver for receiving a wireless data signal; (fig.1, 23)
- A hub controller (fig.1, 3) connected between said data reception circuit and said upstream USB port; and [0116]
- At least one remote wireless peripheral device comprising:
 - A circuit for generating peripheral device information; (fig.1, 23)
 - An RF transmitter connected to said circuit for transmitting a wireless signal including said device information, said circuit and said RF transmitter being integral to said peripheral device, said RF transmitter being the sole means for communicating said device information from said at least one device and whereby when said upstream USB port is connected to the computer USB port and said at least one device generates said wireless signal, said data

reception circuit receives said wireless signal and said hub controller converts said wireless data signal to a USB data signal and passes said USB data signal to said upstream port for transmission of said device information to the computer with an identification of said at least one device based upon said device identification. [0116], [0077]

Mizutani discloses all the limitations as above except peripheral device not having any USB communication capability. However, Mattingly discloses hub 102 is providing wireless communications to a plurality of users, through devices 104a-n. [0023] Devices 104a-n can include any integral device that is configured for accessing a computer system wirelessly and does not include USB capability. [0026]

It would have been obvious to one having ordinary skills in the art at the time the invention was made to incorporate Mattingly's teaching into Mizutani's system so as implement wireless peripherals without use of USB capability since Mattingly shows such devices to be equivalent and Mizutani suggests that any device may be used.[0011]

As per claim 33, Mizutani discloses wherein said at least one peripheral device is one of a keyboard, a mouse and a joystick.[0003]

As per claim 34, Mizutani discloses wherein said at least one peripheral device is a keyboard and including a mouse, said mouse having a circuit for generating mouse information and an RF transmitter connected to said mouse circuit for

transmitting another wireless signal including said mouse information and a mouse identification, said RF transmitter being the sole means for communicating said mouse information from said mouse, whereby when said upstream USB port is connected to the computer USB port and said mouse generates said another wireless signal, said data reception circuit receives said another wireless signal and said hub controller converts said another wireless data signal to a USB data signal and passes said USB data signal to said upstream port for transmission of said mouse information to the computer with an identification of said mouse based upon said device identification.[0003], [0014-0015], [0077], [0020], [0077], [0083]

3. Claim 28-29, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizutan et al. (Pub No. :US 2003/0043771 A1) in view of Mattingly et al. (Pub No US20010014102)

As per claim 28, Mizutani discloses the wireless USB hub further including data reception circuits each corresponding to an associated separate remote conventional wireless peripheral device, wherein each of said additional data reception circuits includes a separate RF receiver for receiving an additional wireless data signal from the associated additional remote conventional wireless peripheral device. [0015], (fig.1,23 transceiver, wherein a hub is controlling each port has a device identifier assigned to them which implies separation of data reception)

Although Mizutani discloses limitations as above showing each corresponding to a separate remote peripheral. However Mizutani fails to disclose two additional data reception circuits. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the additions of 2nd and 3rd circuits since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.

As per claim 29, Mizutani discloses all the limitations as above except RF receiver is a DSSS BPSK modulation receiver as claimed in claims 18 and 23 and further recited as to claim 19, a signal discriminator connected between said DSSS BPSK modulation receiver and hub controller for receiving the wireless data signal. However, Applicant Admitted Prior Art RF receiver is conventional DSSS BPSK modulation receiver which is well known in the art. (page 10, lines 9-10)

It would have been obvious one having ordinary skills in the art at the time the invention was made to have DSSS BPSK modulation receiver with the same purpose of modulating signals to correlated signal for communicating between devices.

As per claim 31, Mizutani discloses a wireless Universal Serial Bus (USB) hub and remote wireless peripheral device for communication with a computer having a USB port comprising:

- A remote wireless peripheral device (fig.1, 7) having a circuit for generating device information related to operations performed by said

peripheral device and an RF transmitter (fig.1, 23) connected to said circuit for transmitting a wireless signal including said device information, said circuits and said RF transmitters being integral to said peripheral devices, said RF transmitter being the sole means for communicating said device information from said peripheral device and said peripheral devices not having any USB communication capability; ([0014], wherein any device inherently discloses device not having usb capability) [0014-0015], [0077], wherein transceiver 21 of wireless transmitting wireless signal into transceiver 23 of device for receiving wireless signal)

- A data reception circuit for receiving said wireless signal from said RF transmitter; (fig.1, 23)
- An upstream USB port(fig.1, 11) adapted to be connected to the computer; and [0116], wherein upstream to computer and downstream to devices)
- A hub controller connected between said data reception circuit and said upstream USB port whereby when said upstream USB port is connected to the USB port of the computer and said peripheral device generates said wireless signal to said data reception circuit, said hub controller converts said wireless signal to a USB data signal and passes said USB data signal to said upstream port for communication to the computer. [0116], [0077]

Mizutani discloses all the limitations as above except the 2nd remote wireless peripheral devices. It would have been obvious to one having

ordinary skills in the art at the time the invention was made to have the 2nd remote peripheral device since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art.

Response to Amendment

4. Applicant's amendment filed on 7/17/04 have been fully considered but does not place application in condition for allowance.

a. In response to applicant's argument that Mizutani does not disclose or suggest said peripheral device not having any USB communication capability. The new ground of rejection above incorporates Mattingly which evidences the equivalence of integral wireless communication peripherals. Thus, the prior art suggests this limitations and patentability of the claims cannot be granted.

b. In response to applicant's argument that Mizutani does not disclose or suggest at least one conventional downstream USB port connected to the hub controller or the upstream USB port. As Mizutani notes at (the abstract) discloses it is normal for a plurality of wireless ports to be connected to a single wireless hub, an arrangement of one wireless hub and a corresponding single wireless port is also possible. A wireless hub and a wireless port each have a device identifier assigned to them. Inter-host communication is enabled by using the device identifier.

Thus, the prior art teaches the invention as claimed and the amended claims do not distinguish over the prior art as applied.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mattingly et al. [Pub No. US20010014102] discloses wireless hub communicate to plurality devices.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

6. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (571)272-3635 or via e-mail addressed to [kim.huynh3@uspto.gov]. The examiner can normally be reached on M-F 9:00AM- 6:00PM.*

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (571)272-3632 or via e-mail addressed to [mark.rinehart@uspto.gov]. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9306 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2100.

Kim Huynh

Oct. 18, 2004


MARK H. RINEHART
SUPERVISORY PATENT EXAMINER
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